Claims

[c1]   What is claimed is:

1.A portable storage device connecting to a master computer and a first slave computer through a serial bus interface, the portable storage device comprising:

a non-volatile memory for storing data in the portable storage device;

a first slave port for connecting the portable storage device to the first slave computer through the serial bus interface; and

a master port for connecting the portable storage device to the master computer through the serial bus interface;

wherein the master computer is capable of accessing data located on the portable storage device and storage apparatuses of the first slave computer and the first slave computer is not capable of accessing any data located on the portable storage device and the master computer.

[c2]   2.The portable storage device of claim 1 further comprising a second slave port for connecting the portable storage device to a second slave computer through the serial bus interface, wherein the master computer is capable of accessing data located on the second slave computer and the second slave computer is not capable of accessing any data located on the portable storage device, the first slave computer, and the master computer.

[c3]   3.The portable storage device of claim 1 further comprising an expansion port for connecting an external storage apparatus to the portable storage device, wherein the master computer is capable of accessing data located on the external storage apparatus and the first slave computer is not capable of accessing any data located on the external storage apparatus.

[c4]   4.The portable storage device of claim 1 wherein the serial bus interface is a universal serial bus (USB) interface.

[c5]   5.The portable storage device of claim 4 being compatible with the USB Mass Storage Class Bulk-Only Transport specification.

[c6]   6.The portable storage device of claim 4 being compatible with the USB On-

The-Go specification.

[c7] 7.The portable storage device of claim 1 wherein the serial bus interface is an IEEE 1394 interface.

[c8] 8.The portable storage device of claim 1 wherein the non-volatile memory is a flash memory.

[c9] 9.A method of connecting a portable storage device to a master computer and a first slave computer through a serial bus interface, the method comprising: providing a non-volatile memory in the portable storage device for storing data; connecting the portable storage device to the first slave computer using the serial bus interface; and connecting the portable storage device to the master computer through the serial bus interface, such that the master computer is capable of accessing data located on the portable storage device and storage apparatuses of the first slave computer and the first slave computer is not capable of accessing any data located on the portable storage device and the master computer.

[c10] 10.The method of claim 9 further comprising connecting the portable storage device to a second slave computer through the serial bus interface, wherein the master computer is capable of accessing data located on the second slave computer and the second slave computer is not capable of accessing any data located on the portable storage device, the first slave computer, and the master computer.

[c11] 11.The method of claim 9 further comprising connecting an external storage apparatus to the portable storage device, wherein the master computer is capable of accessing data located on the external storage apparatus and the first slave computer is not capable of accessing any data located on the external storage apparatus.

[c12] 12.The method of claim 9 wherein the serial bus interface is a universal serial bus (USB) interface.

[c13]
13.The method of claim 12 wherein the portable storage device is compatible

with the USB Mass Storage Class Bulk-Only Transport specification.

[c14]   14.The method of claim 12 wherein the portable storage device is compatible with the USB On-The-Go specification.

[c15]   15.The method of claim 9 wherein the serial bus interface is an IEEE 1394 interface.

[c16]   16.The method of claim 9 wherein the non-volatile memory is a flash memory.